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09/898,505	07/03/2001	Konrad Grob	GIS-3.2.026/4049	4008

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COBRIN & GITTES

21 Floor  
750 Lexington Avenue  
New York, NY 10022

EXAMINER

JACKSON, ANDRE K

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/898,505

Applicant(s)

GROB ET AL.

Examiner

Andre' K. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,9,11,14,15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) 6,7,10,12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the septum, Merlin valve and coiled chamber must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "6" has been used to designate both chamber and liner on page 5, line 11 and page 9 line 6. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

4. The disclosure is objected to because of the following informalities:

On page 1, line 10 "analysed" should be --analyzed--.

On page 2, line 1 "analysed" should be --analyzed--.

On page 5, line 3 the sentence seems to be incomplete.

On page 8, line 2 "vapour" should be --vapor--.

On page 8, line 6 "vapours" should be --vapors--.

On page 8, line 11 "vapours" should be --vapors--.

On page 8, line 11 "analysed" should be --analyzed--.

On page 9, line 23 "analogue" should be --analog--.

On pages 9 and 10 the Applicant refers to the Figure as "figure" and "fig.". For consistency the figures should be written as --Figure 1-- or --Figure 2--.

On page 10, line 19 "vapour" should be --vapor--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5,8,9,11,13,14,15,17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grob (EP 0551 847) in view of Sasano et al. (6203597).

Regarding 1, Grob et al. discloses "A process and device for vaporization injections in equipments for gas chromatographic analysis" which has an elongated and heated vaporization chamber, a syringe equipped with a needle and where the sample induction is carried out without prior vaporization (Figure 2). What is not disclosed is a stop and vaporization means for the liquid. However, Sasano et al. discloses a "Method and apparatus for mass injection of sample" which has a stop means (65). Therefore, to modify Grob et al. to include a stop and vaporization means for the liquid as taught by Sasano et al. would have been obvious to one of ordinary skill in the art at the time of invention as taught by Sasano et al. since having the stop creates a resistance against the sample. A distance where the stop is placed is not disclosed. However, it is well within the purview of the skilled artisan to vary the placement of the stop to achieve various results with the injection rate.

Regarding claim 2, a distance where the stop is placed is not disclosed. However, it is well within the purview of the skilled artisan to vary the placement of the stop to achieve various results with the injection rate.

Regarding claim 3, a distance where the needle extends into the chamber is not given. However, it is well within the purview of the skilled artisan to vary the placement of the needle into the chamber to achieve various results with the injection rate.

Regarding claim 4, neither Grob et al. nor Sasano et al. disclose the diameter of the internal chamber of the needle. However, it is well within the purview of the skilled artisan to experiment with different diameters of needles to achieve various injection velocities.

Regarding claim 5, Grob et al. discloses where the chamber is cooled (Abstract).

Regarding claims 8 and 9, Grob et al. does not explicitly state the length of the vaporization chamber. However, it would have been obvious to one of ordinary skill in the art to make the chamber of various lengths to handle different amounts of fluid.

Regarding claim 11, Grob et al. does not disclose where the chamber is made from metal. However, Sasano et al. discloses where the liner is made from metal (Column 2, line 68). Therefore, to make the chamber is made from metal as taught by Sasano et al. since this would make it easier to heat or cool the chamber.

Regarding claim 13, Grob et al. discloses where a septum is mounted on the injector head (Column 1, line 21).

Regarding claim 14, Grob et al. does not disclose where there is a restriction in the lower part containing the stop. However, Sasano et al. discloses where there is a restriction in the lower part containing the stop (Figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Grob et al. to include where there is a restriction in the lower part containing the stop as taught by Sasano et al. since this would cause a higher flow pressure.

Regarding claim 15, Grob et al does not disclose where the restriction is connected to the upper part of the chamber by a funneled wall. However, Sasano et al. discloses where the restriction is connected to the upper part of the chamber by a funneled wall (Figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Grob et al. to include where the restriction is connected to the upper part of the chamber by a funneled wall as taught by Sasano et al. since the funneled wall makes for an easier flow.

Regarding claim 17, Grob et al. discloses where the sample is injected via syringe (4) with a needle (3) into the chamber (1) and where the sample is injected in the upper portion of the chamber in the form of a band at a high speed (Column 7, line 17-20). What is not disclosed is a stop and vaporization means for the liquid. However, Sasano et al. discloses a "Method and apparatus for mass injection of sample" which has a stop means (65). Therefore, to modify Grob et al. to include a stop

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and vaporization means for the liquid as taught by Sasano et al. would have been obvious to one of ordinary skill in the art at the time of invention as taught by Sasano et al. since having the stop creates a resistance against the sample.

Regarding claim 18, a distance where the needle extends into the chamber is not given. However, it is well within the purview of the skilled artisan to vary the placement of the needle into the chamber to achieve various results in injection rates. A distance where the stop is placed is not disclosed. However, it is well within the purview of the skilled artisan to vary the placement of the stop to achieve various results with the injection rate.

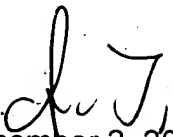
7. Claims 6,7,10,12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' K. Jackson whose telephone number is (703) 305-1522. The examiner can normally be reached on Mon.-Fri. 7AM-4PM.




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4705. The fax phone numbers for the organization where this application or proceeding is assigned are N/A for regular communications and N/A for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

A.J.   
December 2, 2002

  
DANIEL S. LARKIN  
PRIMARY EXAMINER